



6AD7-G

TRIODE—POWER AMPLIFIER PENTODE

Heater ■	Coated Unipotential Cathode	
Voltage	6.3	a-c or d-c volts
Current	0.85	amp.
Maximum Overall Length		4-5/8"
Maximum Seated Height		4-1/16"
Maximum Diameter		1-13/16"
Bulb		ST-14
Base		Medium Shell Octal 8-Pin

Pin 1 – Triode Grid
Pin 2 – Heater
Pin 3 – Pentode Plate
Pin 4 – Pentode Screen
Pin 5 – Pentode Grid
Pin 6 – Triode Plate
Pin 7 – Heater
Pin 8 – Cathode

Mounting Position: Any

BOTTOM VIEW (8AY)

TRIODE UNIT

Plate Voltage	285 max.	volts ←
Plate Dissipation	1.0 max.	watt
Characteristics - Class A_1 Amplifier:		
Plate Voltage	250	volts
Grid Voltage	-25	volts
Amp. Factor	6	
Plate Res.	19000 approx.	ohms
Transcond.	325	µmhos
Plate Current	4	ma.

PENTODE UNIT

Plate Voltage	375 max.	volts ←
Screen Voltage	285 max.	volts ←
Plate Dissipation	8.5 max.	watts
Screen Dissipation	2.7 max.	watts
Typical Operation and Characteristics - Class A_1 Amplifier:		
Plate Voltage	250	volts
Screen Voltage	250	volts
Grid Voltage	-16.5	volts
Peak A-F Grid Voltage	16.5	volts
Zero-Sig. Plate Current	34	ma.
Max.-Sig. Plate Current	36	ma.
Zero-Sig. Screen Current	6.5	ma.
Max.-Sig. Screen Current	10.5	ma.
Plate Resistance	80000 approx.	ohms
Transconductance	2500	µmhos
Load Resistance	7000	ohms
Total Harmonic Distortion	8	%
Max.-Signal Power Output	3.2	watts

PUSH-PULL AMPLIFIER ←

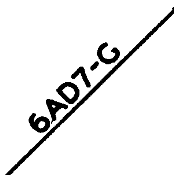
Pentode Unit of 6AD7-G and a separate 6F6-G

Plate Voltage	375 max.	volts

■ In circuits where the cathode is not directly connected to the heater, the potential difference between heater and cathode should be kept as low as possible.

← Indicates a change.

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.





6AD7-G

TRIODE—POWER AMPLIFIER PENTODE

(continued from preceding page)

Screen Voltage	285 max.	volts
Plate Dissipation	8.5 max.	watts
Screen Dissipation	2.7 max.	watts

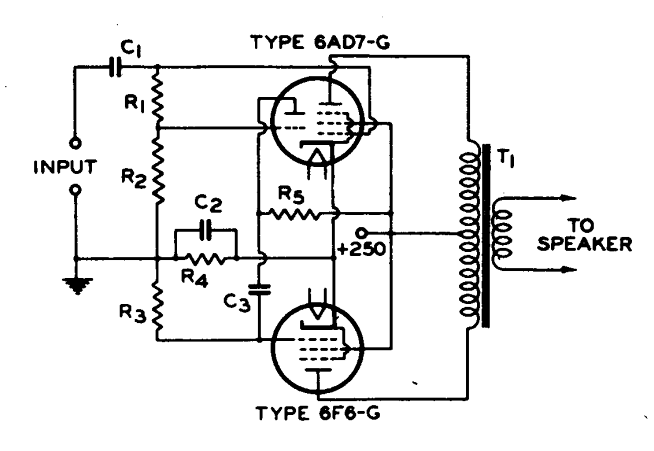
→ *Typical Operation with Cathode Bias - Class AB_1 Amplifier:*

Values are for pentode unit of 6AD7-G and 6F6-G together

Plate Voltage	250	285	375	volts
Screen Voltage	250	285	250	volts
Cathode Resistor	560	470	470	ohms
Peak A-F Grid to Grid Volt.	59	64	55	volts
Zero-Sig. Plate Current	36	47.5	41	ma.
Max.-Sig. Plate Current	41	54.5	50	ma.
Zero-Sig. Screen Current	6.7	8.2	6.7	ma.
Max.-Sig. Screen Current	11.7	13.7	9.2	ma.
Effec. Load Resistance (plate to plate)	14000	12000	16000	ohms
Total Harmonic Dist.	4	4	2	%
Max.-Sig. Power Output	6	8.5	9	watts

For curves of the pentode unit, refer to Type 6F6.

TYPICAL PUSH-PULL CIRCUIT WITH PHASE INVERTER USING 6AD7-G AND 6F6-G



R_1 = 330000 OHMS
R_2 = 120000 OHMS
R_3 = 470000 OHMS
R_4 = 560 OHMS
R_5 = 150000 OHMS

C_1 = 0.01 μf
C_2 = 25 μf
C_3 = 0.01 μf
T_1 = OUTPUT TRANSFORMER: PLATE-TO-PLATE LOAD, 14000 OHMS

← Indicates a change.